

173-475 AMBIENT AIR QUALITY STANDARDS FOR CARBON MONOXIDE, OZONE, AND NITROGEN DIOXIDE

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173-475-010 PURPOSE.

These rules implement chapter 70.94 RCW, the Washington State Clean Air Act, and chapter 163, Laws of 1979 ex. sess. The purpose of this chapter is to set statewide air quality standards for carbon monoxide, ozone, and nitrogen dioxide.

[Statutory Authority: RCW 43.21A.080, 70.94.331, 70.120.030, and 70.120.120. 80-03-071 (Order DE 79-36), § 173-475-010, filed 2/29/80.]

173-475-020 DEFINITIONS.

- (1) "Air quality standard" means an established concentration, exposure time, or frequency of occurrence of a contaminant or multiple contaminants in the ambient air which shall not be exceeded.
- (2) "Ambient air" means the surrounding outside air.
- (3) "Department" means the state department of ecology.
- (4) "National air monitoring stations (NAMS)" means fixed monitoring stations operated by the state and local air pollution control agencies to meet national monitoring objectives. The stations are a subset of the SLAMS network and are sited with emphasis on urban and multi-source areas.
- (5) "State and local air monitoring stations (SLAMS)" means stations designed to meet any of four basic monitoring objectives:
 - (a) To determine highest concentrations expected to occur;
 - (b) To determine representative concentrations in areas of high population density;
 - (c) To determine the impact on ambient air pollution levels of significant sources or source categories; and
 - (d) To determine general background concentration levels.

- (6) "Special purpose monitoring stations (SPMS)" means monitoring stations operated by state and local air pollution control agencies to supplement the SLAMS network in order to increase the overall effectiveness of the state's monitoring efforts.

[Statutory Authority: RCW 43.21A.080, 70.94.331, 70.120.030, and 70.120.120. 80-03-071 (Order DE 79-36), § 173-475-020, filed 2/29/80. Formerly chapters 18-32 and 18-46 WAC (part).]

173-475-030 AIR QUALITY STANDARDS.

- (1) Carbon monoxide in the ambient air as measured at a SPMS designated by the department for the purpose of determining compliance with air quality standards, or at any NAMS or SLAMS, shall not exceed the following values:
- (a) Nine parts per million (ten milligrams per cubic meter) eight-hour average concentration not to be exceeded more than once per year at any location where people would be exposed to such concentrations for eight consecutive hours or more. Compliance shall be based on data that begins and ends on a clock hour. There shall be no overlapping of hours in any violation period. A maximum of three violations can occur in any one day.
 - (b) Thirty-five parts per million (forty milligrams per cubic meter) one-hour average concentration not to be exceeded more than once per year at any location where people would be exposed to such concentrations for one hour or more. Compliance shall be determined from data that begins on a clock hour.
- (2) Ozone in the ambient air as measured at a SPMS designated by the department for the purpose of determining compliance with this air quality standard, or at any NAMS or SLAMS, shall not exceed 0.12 parts per million (two hundred and thirty-five milligrams per cubic meter) hourly concentration on more than 1.0 days per calendar year as determined under the following conditions:
- (a) Three calendar years of data shall be used in determining compliance with this standard. If three years of data are not available, a minimum of one calendar year must be used;
 - (b) All hourly measurements must start on the clock hour; and
 - (c) All daily maximum hourly averages not available for a year shall be accounted for by use of the following equation:

$$e = v + v/n (N-n-z)$$

e = the estimated number of potential times the allowed concentrations are exceeded for the year.

N = the number of required monitoring days in the year.

n = the number of days that valid data was available.

v = the number of days that readings have exceeded compliance level.

z = the number of days that readings are assumed to be less than the level of the standard. If a day should be included is based on whether the daily maximum one-hour reading on both the preceding day and the following day do not exceed 0.09 ppm ozone.

- (3) Nitrogen dioxide. The annual arithmetic mean of nitrogen dioxide readings in the ambient air measured at a SPMS designated by the department for the purpose of determining compliance with this air quality standard, or at any NAMS or SLAMS, shall not exceed 0.05 parts per million (one hundred micrograms per cubic meter).

[Statutory Authority: RCW 43.21A.080, 70.94.331, 70.120.030, and 70.120.120. 80-03-071 (Order DE 79-36), § 173-475-030, filed 2/29/80. Formerly WAC 18-32-020 and 18-46-030.]

173-475-040 MEASUREMENT METHODS.

Measurements for determining compliance with WAC 173-475-030 shall be made by equipment and procedures approved by and on file with the department. All methods and procedures shall be available to the public upon request.

[Statutory Authority: RCW 43.21A.080, 70.94.331, 70.120.030, and 70.120.120. 80-03-071 (Order DE 79-36), § 173-475-040, filed 2/29/80. Formerly WAC 18-32-040 and 18-46-040.]

173-475-050 REPORTING OF DATA.

Local and regional air pollution control agencies shall notify the department of all occurrences which exceed the applicable standards for carbon monoxide, ozone, or nitrogen dioxide. Notification shall be made quarterly and shall include:

- (a) Location of monitoring sites by address and UTM coordinates;
- (b) Date and time of each violation;
- (c) Concentrations recorded; and
- (d) Method of sampling used.

[Statutory Authority: RCW 43.21A.080, 70.94.331, 70.120.030, and 70.120.120. 80-03-071 (Order DE 79-36), § 173-475-050, filed 2/29/80. Formerly WAC 18-32-050 and 18-46-050.]